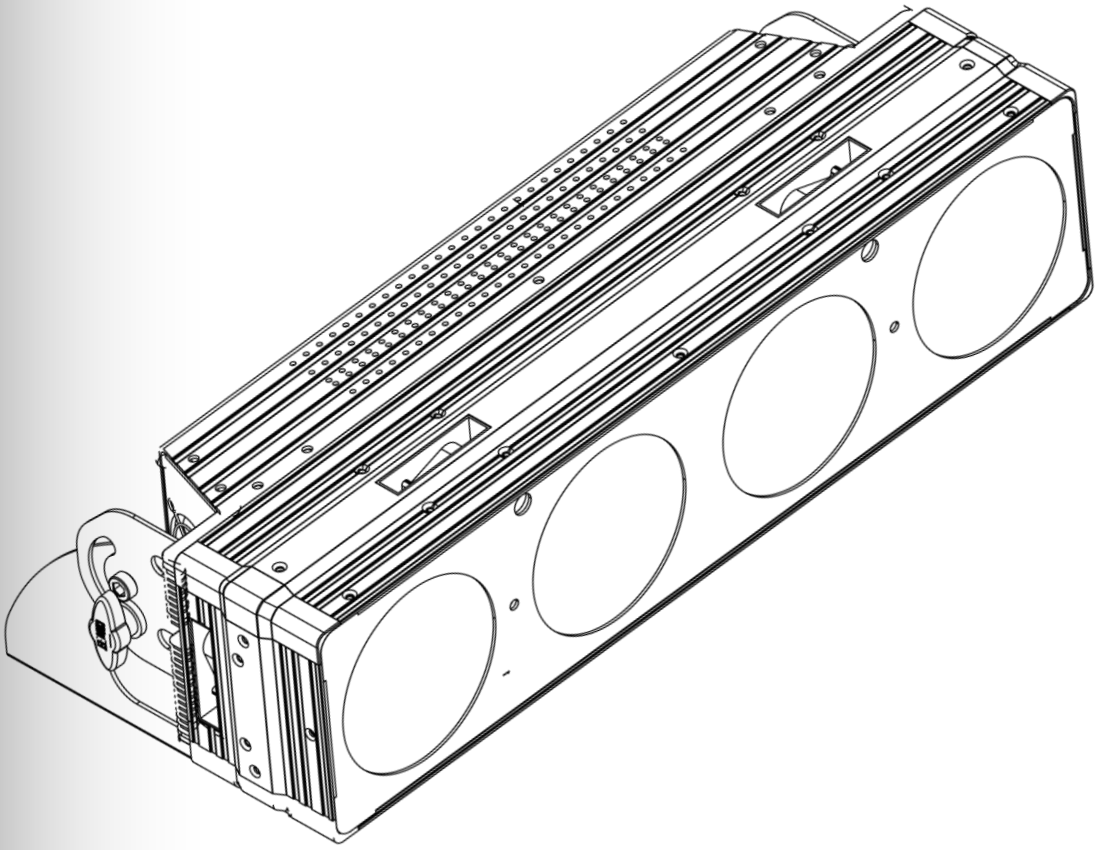
NEXUS™ 4x1

User Manual



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It's Green Thinking.

Edition Notes

This User Manual covers the description, safety precautions, installation, programming, operation, and maintenance of the Nexus™ 4x1.

Chauvet released this edition of the Nexus™ 4x1 User Manual in November 2014.

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For better results, print this document in color, on letter size paper (8.5 x 11 in), double-sided. If using A4 paper (210 x 297 mm), configure your printer to scale the content accordingly.

Intended Audience

Any person in charge of installing, operating, and/or maintaining this product should completely read through the guide that shipped with the product, as well as this manual, before installing, operating, or maintaining this product.

Disclaimer

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1. Before You Begin

What Is Included

- Nexus™ 4x1
- Mounting bracket
- Neutrik® powerCON® power cord
- #5 Allen key with handle
- Warranty Card
- Quick Reference Guide

Claims

Carefully unpack the product immediately, and check the box to make sure all the parts are in the package and are in good condition.

If the box or the product and included accessories appear damaged from shipping or show signs of mishandling, notify the carrier immediately, not Chauvet. Failure to report damage to the carrier immediately may invalidate your claim. In addition, keep the box and contents for inspection.

For other issues, such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with Chauvet within 7 days of delivery.

Manual Conventions

Convention	Meaning
1–512	A range of values in the text
50/60	A set of mutually exclusive values in the text
<SET>	A button on the product's control panel
Settings	A product function or a menu option
MENU>Settings	A sequence of menu options
1–10	A range of menu values from which to choose in a menu
Yes/No	A set of two mutually exclusive menu options in a menu
ON	A unique value to be entered or selected in a menu

Symbols

Symbols	Meaning
	Critical installation, configuration, or operation information. Failure to comply with this information may cause the product not to work, damage third-party equipment, or cause harm to the operator.
	Important installation or configuration information. Failure to comply with this information may keep the product from working.
	Useful information.

Safety Notes

Read all the following Safety Notes before working with this product. These notes include important information about the installation, usage, and maintenance of this product.

This product contains no user-serviceable parts. Any reference to servicing in this User Manual will only apply to properly trained Chauvet certified technicians. Do not open the housing or attempt any repairs.

All applicable local codes and regulations apply to proper installation of this product.

Personal Safety

- Avoid direct eye exposure to the light source while the product is on.
- Always disconnect this product from its power source before servicing.
- Always connect this product to a grounded circuit to avoid the risk of electrocution.
- Do not touch this product's housing during operation because it may be very hot.

Mounting and Rigging

- This product is for indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture.
- Make sure there are no flammable materials close to this product while it is operating.
- When hanging this product, always secure to a fastening device using a safety cable (included).

Power and Wiring

- Always make sure you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- Never connect this product to a dimmer pack or rheostat.
- Never disconnect this product by pulling or tugging on the power cable.

Operation

- Do not operate this product if you see damage on the housing, lenses, or cables. Have the damaged parts replaced by an authorized technician at once.
- Do not cover the ventilation slots when operating to avoid internal overheating.
- The maximum ambient temperature is 113 °F (45 °C). Do not operate this product at a higher temperature.
- In case of a serious operating problem, stop using this product immediately!

In the unlikely event that this CHAUVET® product requires service, contact Chauvet Technical Support.

Expected LED Lifespan

LEDs gradually decline in brightness over time, mostly because of heat. LEDs packaged in clusters exhibit higher operating temperatures than single LEDs. Using clustered LEDs at their fullest intensity significantly reduces their lifespan, which under normal circumstances is 40,000 to 50,000 hours. If extending this lifespan is vital, lower the operating temperature by improving the ventilation around the product and reducing the ambient temperature to an optimal operating range. In addition, limiting the overall projection intensity might help to extend the LEDs' lifespan.

2. Introduction

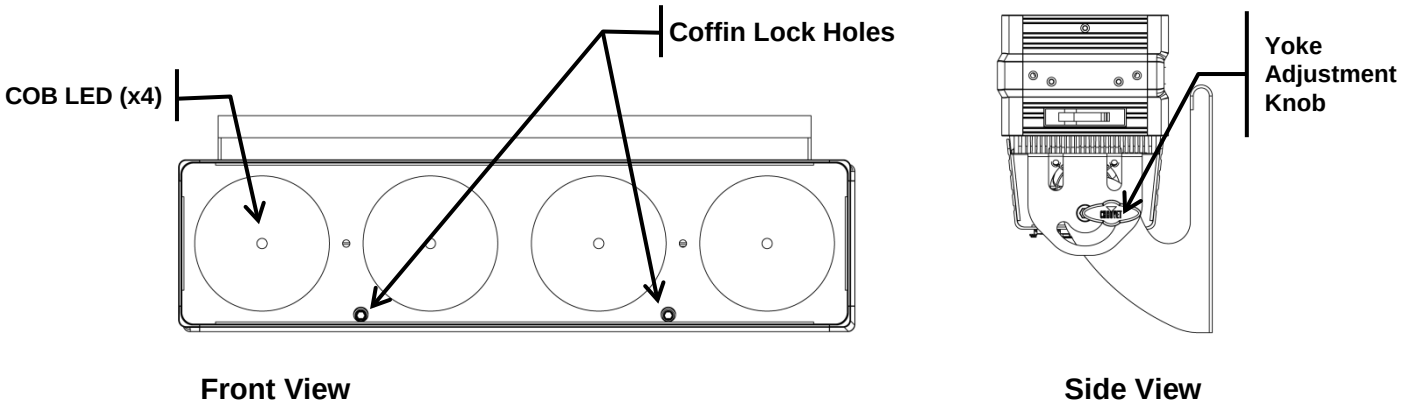
Description

Nexus™ 4x1 is a tour-ready wash light with a pixel mappable display of four 27-watt RGB COB LEDs. The combination of circuit on board (COB) emitters and a clever reflector design create a soft, brilliant, light with saturated hues. The Nexus™ 4x1 operates in Standalone mode or with the Kling-Net, Art-Net™, or DMX protocols. The Nexus™ 4x1 panels have coffin locks so they can be connected into large arrays.

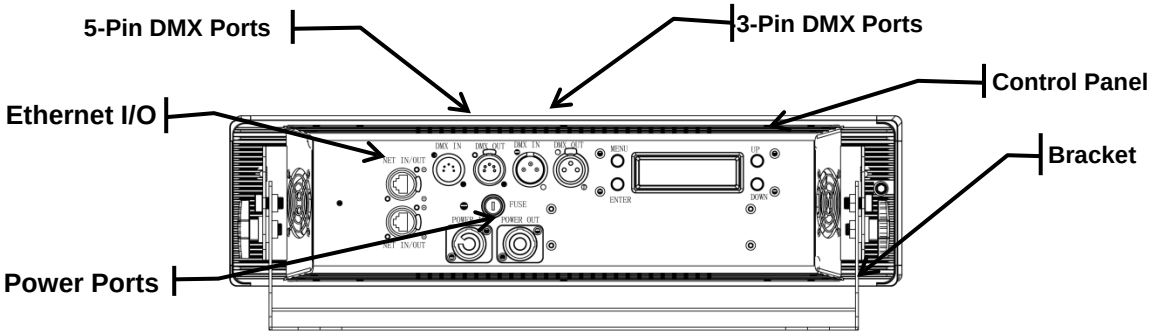
Features

- 4 27-watt RBG COB LEDs
- Pixel mapping capability
- Operates in Standalone mode
- Operates in Kling-Net, ,Art-Net™, or DMX protocols using 3-, 5-, 9-, 12- or 17-channel DMX personalities
- Coffin locks for connecting into arrays
- Works seamlessly with Nexus™ 4x4 and Nexus™ 2x2
- Universal power and control cabling with Neutrik® powerCON®, Neutrik® etherCON®, and both 3- and 5-pin DMX ports

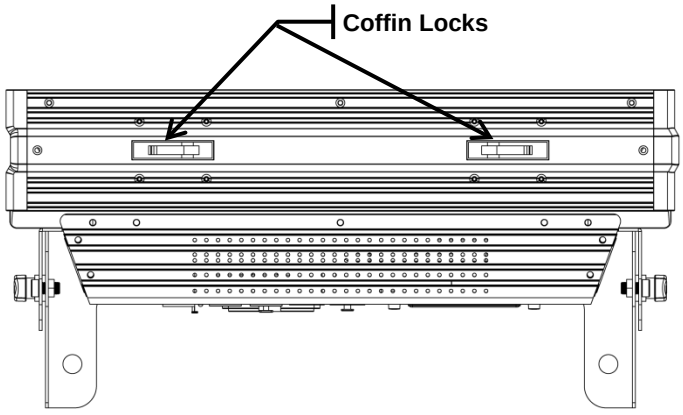
Overview



Front View **Side View**

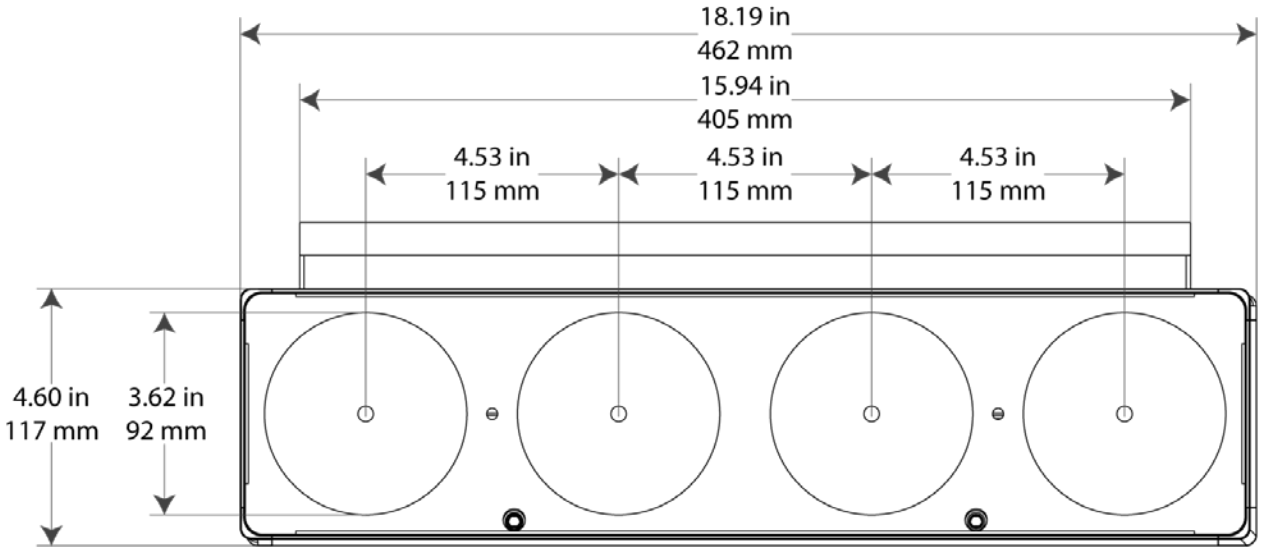


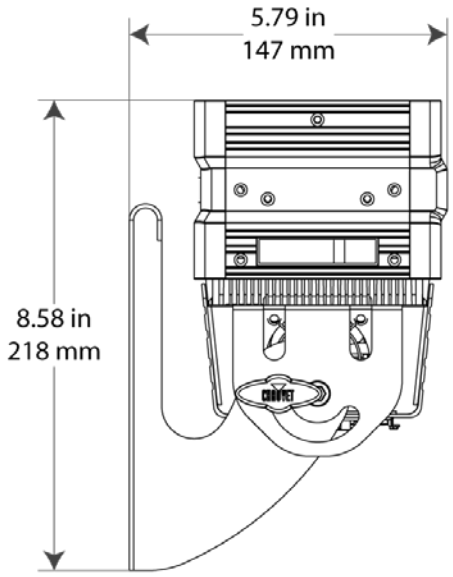
Rear View



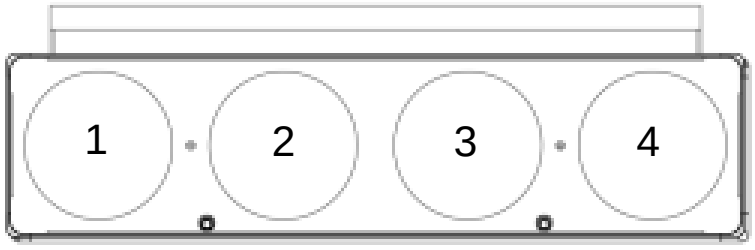
Top View

Dimensions





Pixel Layout



3. Setup

AC Power

The Nexus™ 4x1 has an auto-ranging power supply that works with an input voltage range of 100–240 VAC, 50/60 Hz. To determine the power requirements for the Nexus™ 4x1, refer to the label on the product or Technical Specifications in this manual.

The listed current rating indicates the maximum current draw during normal operation. For more information, download Sizing Circuit Breakers from the Chauvet website www.chauvetprofessional.com.

- **Always connect this product to a protected circuit with an appropriate electrical ground.**
- **Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.**

AC Plug

The Nexus™ 4x1 comes with a power input cord terminated with a Neutrik® powerCON® connector on one end, and an Edison plug on the other end (U.S. market). If the power input cord that came with the Nexus™ 4x1 has no plug, or there is the need to change the plug, use the table below to wire a new plug.

Connection	Wire (U.S.)	Wire (Europe)	Screw Color
AC Live	Black	Brown	Yellow or Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

Fuse Replacement

The fuse is a T 3.15 A, 250 V and it is located in a fuse holder next to the etherCON® power ports. To replace the fuse, do the following:

1. Disconnect the product from the power outlet.
2. Using a flat-head screwdriver, unscrew the fuse holder cap.
3. Remove the blown fuse and replace it with a good fuse of the same type and rating.
4. Screw the fuse holder cap back in place.
5. Reconnect the power to the product.

Make sure to disconnect the power before replacing a blown fuse. Always replace the blown fuse with a fuse of the same type and rating.

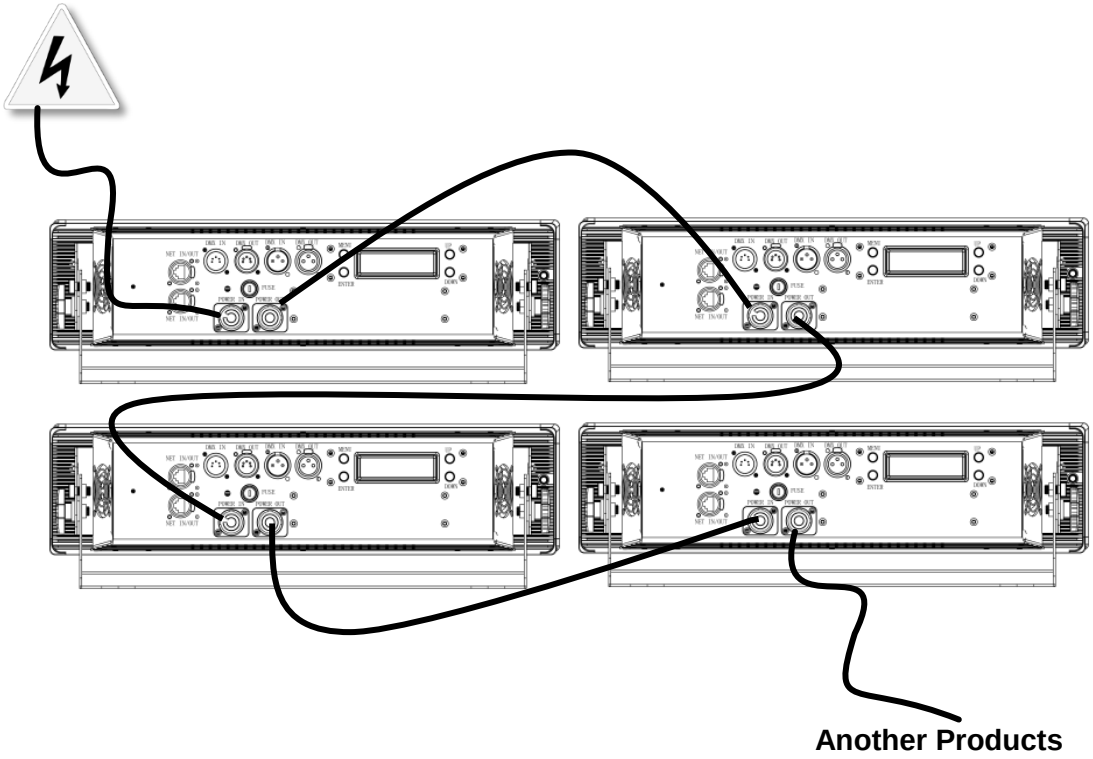
Power Linking

The Nexus™ 4x1 supports power linking as described below:

- Up to 4 products at 120 V
- Up to 7 products at 208 V
- Up to 8 products at 230 V.

A power cord is included but power-linking cables are not included. For power-linking cables, see the Chauvet website at www.chuavetlighting.com.

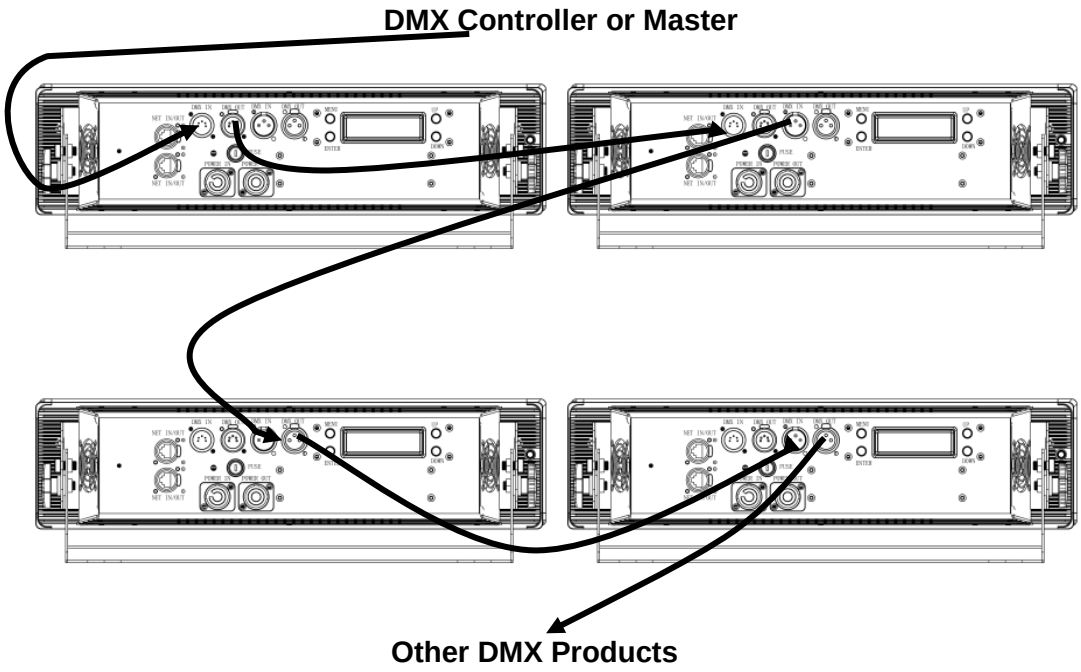
Power Linking Diagram



DMX Linking

DMX Linking connects Nexus™ 4x1 panels through their DMX input and output ports. The Nexus™ 4x1 has both 3- and 5-pin DMX ports, so either 3- or 5-pin cables, or a combination of both, can be used. DMX Linking is for DMX control and for Master/Slave control.

DMX Linking Diagram



In DMX mode, Nexus™ 4x1 panels are controlled by a DMX controller, and the DMX address and DMX personality must be set through the control panel.

DMX Mode

The Nexus™ 4x1 automatically senses its control source. When there is a DMX cable plugged in, the Nexus™ 4x1 expects DMX control. When there is an etherCON® cable plug in, it expects an IP protocol, such as Art-Net™ or Kling-Net.

The Nexus™ 4x1 has 5 DMX personalities, each with different capabilities. The table below lists the capabilities of each personality. For more information, see DMX Address and DMX Channel. 3, 5, 9, 12 or 17

Personality	Capabilities
3-channel	RGB control
5-channel	RGB control with dimmer and strobe
9-channel	R, G, B, WW, CW control with dimmer and dimmer speed, strobe, color macros, auto programs and program speed
12-channel	RGB with individual pixel control
17 channel	R, G, B, control with 4 WW and 4 CW controls, dimmer and dimmer speed, strobe, color macros, auto programs and program speed

Master/Slave Mode

In Master/Slave mode one Nexus™ 4x1 panel (the master) controls one or more Nexus™ 4x1 panels (the slaves) without a DMX controller. The master Nexus™ 4x1 is set to an auto program, or color, and sends its DMX to the slaves so they do the same thing. For more information, see Master/Slave.

- **Do not connect a DMX controller to the DMX chain when operating Nexus™ 4x1 panels in Master/Slave mode, because signals from the master and the DMX controller will conflict and cause erratic behavior in all the panels.**
- **Master/Slave operates via DMX ports only. The etherCON® ports cannot be used for Master/Slave mode.**

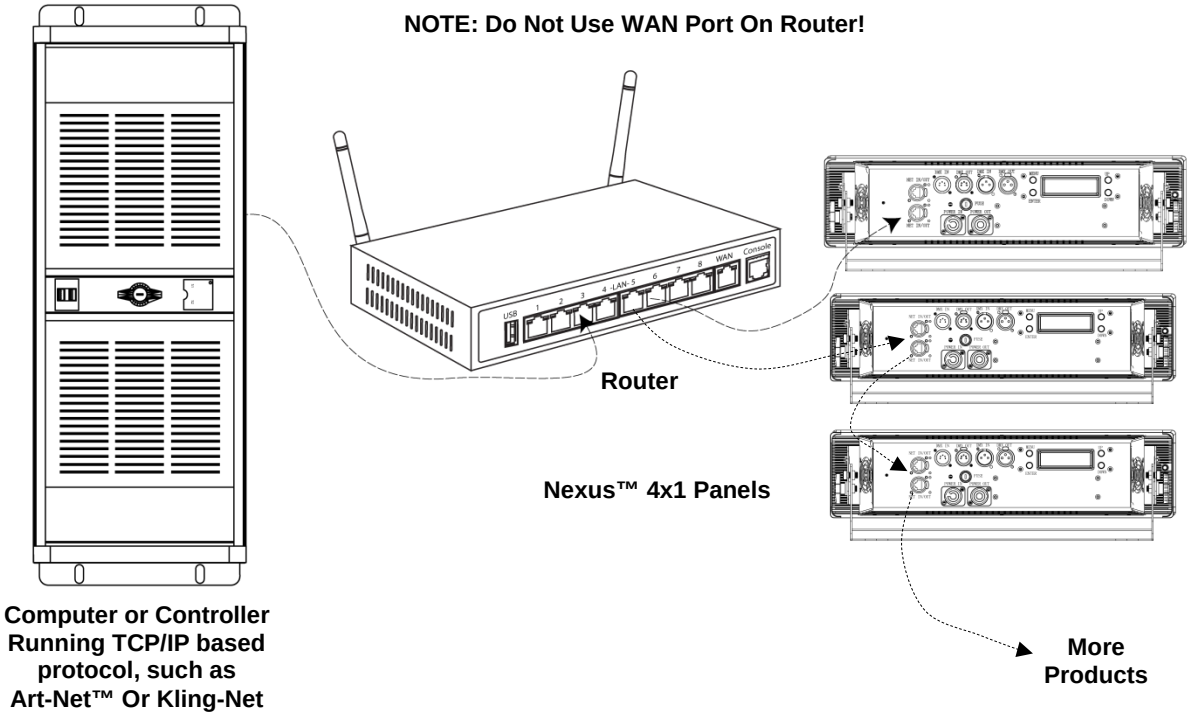
For more information about DMX, see the CHAUVET® DMX primer, available at www.chauvetlighting.com

Ethernet Connections

Ethernet connections link Nexus™ 4x1 panels to routers and each other through their etherCON® ports. Ethernet connections are for running TCP/IP-based control system, such as Kling-Net and Art-Net®. All etherCON® ports can be either input or output, and panels can be linked together, but the start of each chain must be a router port.

Do not connect Nexus™ 4x1 panels to the WAN port of the router.

Ethernet Connections Diagram



Kling-Net Mode

Kling-Net is a network protocol that uses TCP/IP to send DMX over a network and into the Neutrik® etherCON® connection ports of the Nexus™ 4x1 panels. Kling-Net works seamlessly with ArKaos MediaMaster™ for configuring and mapping display devices. For more information, see Kling-Net.

Kling-Net requires a gigabit (1000 Mbps) Ethernet card and network router.

Art-Net™ Mode

Art-Net™ is an Ethernet protocol that uses TCP/IP to send DMX signals over a network and into the etherCON® connection ports of the Nexus™ 4x1 panels. Art-Net™ requires configuration through the control panel. For more information, see Art-Net™.

For more information about Art-Net™, see the Art-Net™ protocol document available on the Chauvet website at www.chauvetlighting.com.

Nexus™ 4x1 panels do not work with Art-Net™ controllers sending in Broadcast mode. For information about the controller's mode, see the controller's User Manual

Setting Modes And Protocols

The Nexus™ 4x1 automatically senses whether control is coming from a DMX source, or a Network source. When there is an etherCON® cable plug into it, the Nexus™ 4x1 expects a TCP/IP protocol, such as Art-Net™ or Kling-Net, depending on the setting in the control panel. If there is a DMX cable plugged into it, the Nexus™ 4x1 expects a DMX controller or Master/Slave control, depending on the settings in the control panel.

The Nexus™ 4x1 can receive control from only one set of ports, either the DMX ports or the etherCON® ports. The Nexus™ 4x1 senses which ports are used on power-up, so the panel cannot be changed from DMX to TCP/IP, or from TCP/IP to DMX while it is turned on.

To switch from one set of ports to another (one control type to another), unplug the Nexus™ 4x1 panel, switch the cables, and then plug the panel in again.

A DMX personality must be set for all modes, DMX, Art-Net™, or Kling-Net. For more information, see DMX Channel.

Kling-Net has no settings to configure, but it must be selected through the control panel. For more information, see Kling-Net.

Art-Net™ has a number of settings that must be configured through the control panel. For more information, see Art-Net™.

Mounting

Before mounting the Nexus™ 4x1, review the Safety Notes section, and read and follow the guidelines below Nexus™ 4x4

- Mount so there is access to the control panel.
- Mount in a way that allows ventilation around the panel.
- Do not mount near flammable materials as indicated in the Safety Notes section.
- Do not mount in rain, high humidity, extreme temperature changes.
- Make sure that the mounting structure can support the weight of the Nexus™ 4x1. See Technical Specification for information on weight.
- Always use a safety cable.

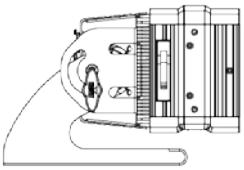
Orientation

The Nexus™ 4x1 can be mounted in any orientation as long as each individual panel is secured through the mounting bracket. Always mount the Nexus™ 4x1s securely and use safety cables.

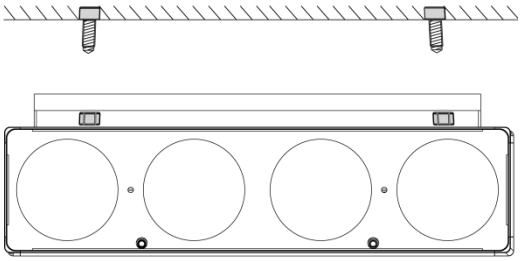
Rigging

The Nexus™ 4x1 includes a hanging bracket with holes for M12 compatible bolts. There are coffin locks on all four edges of the Nexus™ 4x1, but these are not load bearing. They are for aligning the panels in an array The coffin locks should not carry the weight of the Nexus™ 4x1. Each Nexus™ 4x1 must be rigged to hold its own weight using the hanging bracket and at least one point per panel.

The hanging bracket can be bolted directly onto a surface, or be connected to truss with clamps. For a complete lines of CHAUVET® clamps, see the Chauvet website at www.chauvetlighting.com.

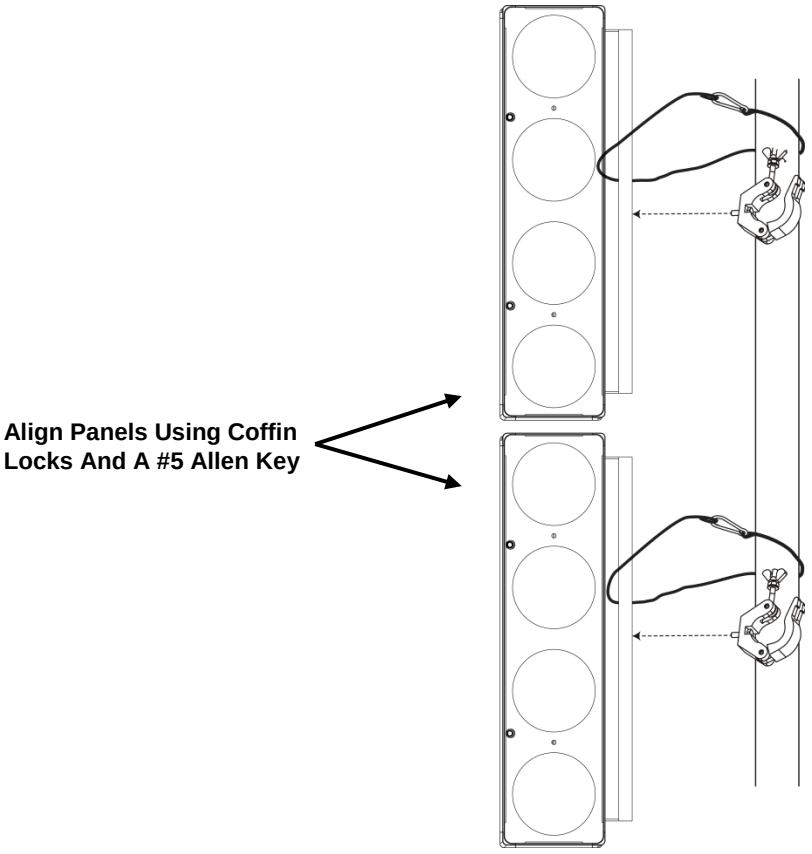


Floor Mounting



Wall Mounting

Mounting Diagram



Pipe Or Truss Mounting

Use the coffin locks only to align the Nexus™ 4x1 panels. The coffin locks are not load bearing. Do not hang the panels by the coffin locks.

4. Operation

Control Panel

Button	Function
<MENU>	Scrolls through the main menu or exits from the current menu or function
<ENTER>	Enables the currently displayed menu or sets the currently selected value in to the current function
<UP>	Navigates upward through the menu list or increases the numeric value when in a function
<DOWN>	Navigates downward through the menu list or decreases the numeric value when in a function

To access a main level menu press **<MENU>** repeatedly, or press **<MENU>** once and then **<UP>** or **<DOWN>**, until the desired menu level shows on the control panel display. Press **<ENTER>** to go into that menu level.

To select a programming value in the selected main level menu, press **<UP>** or **<DOWN>** until the desired option shows on the control panel display. Press **<ENTER>** to select the option.

To exit back to the home screen, press and hold **<MENU>** for 10 seconds.

The home screen on the control panel display shows the current operating state—**<Master>** if the Nexus™ 4x1 is in Standalone or Master mode; and **<Slave>**, if the panel is in Art-Net™, Kling-Net, or DMX mode.

The Menu Map below shows the main level and the programming levels for each option.

- **For Ethernet Settings, <MENU> must be pressed twice be pressed twice to change between Art-Net™ and Kling-Net..**
- **Setting changes are not activated until the control panel display returns to the home screen. To return the control panel display to the home screen press and hold <MENU> for 10 seconds.**
- **After pressing <MENU> once, <UP> and <DOWN> can be used to cycle through main level options**

Menu Map

Main Level	Programming Levels				Description
Auto Show	Auto 1–9		Show Speed 000–100		Selects Auto programs 0–8 and speed control
	Fade 1–2				Selects color fades 1–2 and speed control
Static	Fixture Color		R G B GB RB RG RGB		Selects a preset colors
	Manual Color		R G B	000–255	Sets color levels for manual color mixing
Dimmer Mode	Off Dimmer 1–3				Sets dimming curve
Back Lite	On 10S 20S 30S				Sets control panel backlight on time
Info	Fixture Hours				Total operating time
	Version				Shows total operating hours
	IP Address				Shows software version
	Device ID				Shows IP address
DMX Address	001–512				Shows ID number
DMX Channel	3Ch 5Ch 9Ch 48Ch 53Ch				Sets DMX personality for DMX, Art-Net™ mode, and Kling-Net modes.
Master/Slave	Master				Sets Master mode
	Slave				Sets Slave mode
White	R G B		125–255		Sets the color mix that will be white
Fan Speed	Auto				Sets fan to slow down when product is cool
	High				Sets fan to run continuously
Temperature					Shows product's internal temperature
Ethernet Settings	Protocol	Kling-Net			Sets Kling-Net® protocols
		Art-Net	IP Mode	Manual	Sets product to use a manual IP addressing
				DHCP	Sets product to use dynamic IP addressing
				Static	Sets product to use its internal IP address
			Net	000–127	Sets the net address of the product
			Subnet Universe	00–15	Sets the universe of the product

Menu Operations

The menu operations set configurations for the Nexus™ 4x1, including built-in programs to operate the Nexus™ 4x1 without a DMX controller. The menu operations are accessed via the control panel. For more information, see Control Panel.

Setting changes are not activated until the control panel display returns to the home screen. To return the control panel display to the home screen press and hold <MENU> for 10 seconds.

Auto Show

Auto Show mode allows for dynamic RGB color mixing without a DMX controller. To activate Auto Show mode do the following:

1. Go to the **Auto Show** main level.
2. Select the Auto (**1–12**) or Fade program.
3. Select the Show Speed (**000–100**).
4. Press **<MENU>** to return to the homes screen.

Exiting Auto Show Mode

Auto Show mode does not stop when a different operating mode, such as DMX, Art-Net™, or Kling-Net is selected. To exit from Show mode put the Nexus™ 4x1 into Slave mode. For more information see Master/Slave . Slave mode does stop when a different operating mode is selected through the control panel.

Static Color

Static mode selects preset colors or color mixing. To set Static mode do the following:

1. Go to the **Static** main level.
2. Select **Fixture Color** or **Manual Color**.
3. Press **<MENU>** to return to the homes screen.

For **Fixture Color**:

1. Select desired color (**R, G, B, GB, RB, RG, or RGB**).

For **Manual Color**:

1. Select the desired color (**R, G, or B**).
2. Select the desired color value (**000–255**).
3. Repeat the steps for each color.
4. Press **<MENU>** to return to the homes screen.

Dimmer Mode

Dimmer Mode configures the rate of the intensity change and color change. There are 3 different of dimmer modes with 1 being the slowest and 3 being the fastest. When Dimmer Mode is set to OFF, the Nexus™ 4x1 fades in direct proportion to the DMX values. To configure Dimmer Mode, do the following:Go to Dimmer Mode in the main level.

1. Select a dimmer curve (**OFF, Dimmer 1, Dimmer 2, or Dimmer 3**).
2. Press **<MENU>** to return to the homes screen.

Back Lite

Back Lite determines how long the backlight on the display stays on. To set the display backlight on time, do the following:

1. Go to **Back Lite** in the main level.
2. Select the desired amount of time (in seconds) the backlight display will stay on after pressing the last menu button (**On, 10S, 20S, or 30S**).
3. Press **<MENU>** to return to the home screen.

Info

Info shows information about the Nexus™ 4x1. To show information, do the following:

1. Select the desired program level based on the information required.
2. Press **<MENU>** to return to the home screen.

- **Fixture Hours** – The amount of time the product has been in use
- **Version** – The software version installed on the product
- **IP Address** - The product's IP address
- **Device ID** - The product's ID number (used for Kling-Net only)

DMX Address

DMX Address sets the Nexus™ 4x1 DMX starting address for DMX mode and Art-Net™ mode. To select a DMX address, do the following:

1. Go to **DMX Address** main level.
2. Select the starting address (**001–512**).
3. Press **<MENU>** to return to the home screen.

The highest recommended DMX addresses for each DMX personality are listed in the table below.

DMX Pers	DMX Address	DMX Pers	DMX Address
3Ch	**510**	**12Ch**	**501**
5Ch	**508**	**17Ch**	**496**
9Ch	**504**		

DMX Channel

DMX channel sets the DMX personality for use in all modes and protocols: DMX, Kling-Net, and Art-Net™. Each DMX personality has different capabilities. For more information, see DMX Mode. To select a DMX personality, do the following:

1. Go to the DMX Channel main level.
2. Select the desired personality (3Ch, 5Ch, 9Ch, 12Ch, or 17Ch).
3. Press <MENU> to return to the home screen.

Master/Slave

Master/Slave mode configures the Nexus™ 4x1 panels so that a group of them (the slaves) duplicates the actions of a single panel (the master). Master/Save mode does not need a DMX controller. To configure the Nexus™ 4x1 panels for Master/Slave mode, do the following:

Set each of the slave panels:

1. Go to the **Master/Slave** main level.
2. Select **Slave**.
3. Press **<MENU>** to return to the home screen.

Set the master panel:

1. Go to the **Master/Slave** main level.
2. Select **Master**.
3. Select a manual program. For more information, see Auto Show and Static Color.
4. Press **<MENU>** to return to the home screen.
5. Set the master to a manual mode. For more information, see Auto Show.

- **Set the slaves before setting the master.**
- **Do not connect a DMX controller to Nexus™ 4x1 prodycts that are configured for Master/Slave operation.**
- **The master panel must be set to a manual mode for Master/Slave to work.**

White

White sets the color temperature of the white produced when the DMX values of Red Green and Blue are at 255 or 100%. To set the color temperature, do the following:

1. Go to the **White** main level.
2. Select the desired color (**R, G, or B**).
3. Select the desired color value (**125–255**).
4. Repeat the steps for each color
5. Press **<MENU>** to return to the home screen

Fan Speed

Fan Speed configures the fan for quiet operation. To configure the fan, do the following:

1. Go to the **Fan Speed** main level.
2. Select the desired speed (**High or Auto**).

Temperature

Temperature shows the internal temperature of the Nexus™ 4x1. To show the internal temperature, do the following:

1. Go to the **Temperature** main level.

Reset To Factory Default

Reset to factory defaults clears all settings in the Nexus™ 4x1. Reset to Factory Defaults is not a menu option. To reset the Nexus™ 4x1 to factory defaults, do the following:

1. Disconnect the Nexus™ 4x1 from power.
2. Press and hold **<MENU>** and **<ENTER>** simultaneously.
3. Reconnect the Nexus™ 4x1 to power.
4. Release **<MENU>** and **<ENTER>** when **Factory reset? ENTER = Confirm** shows on the display.
5. Press **<ENTER>**.
6. Wait for the reset process to finish.

Setting Ethernet Protocols

The Nexus™ 4x1 panels run on Kling-Net or Art-Net.

The Kling-Net protocol requires no configuration, except to set the Nexus™ 4x1 to Kling-Net. All Ethernet configurations in the Kling-Net protocol are done automatically by ArKaos MedaiMaster™.

The Art-Net protocol requires configuration of a number of Ethernet settings. .For more information, see Art-Net™.

Kling-Net

To set the Nexus™ 4x1 to Kling-Net, do the following:

1. Press **<MENU>** and then **<DOWN>**. Ethernet Settings shows in the display.
2. Press **<ENTER>**.
3. If **<Kling-Net>** shows in the display, Press **<MENU>** until display return to the home

The Kling-net protocol is set.

If **<Art-Net>** shows in the display, do the following:

4. Press **<ENTER>**. The words **<Art-Net>** start blinking.
5. Press **<UP>** or **<DOWN>. <Kling-Net>** shows and is blinking.
6. Press **<ENTER>**. The words **<Kling-Net>** stop blinking.
7. Press **<MENU>** untitl display return to the home

The Kling-Net protocol is set.

Art-Net™

To set the Nexus™ 4x1 to Art-Net, do the following:

1. Press **<MENU>** and then **<DOWN>**. Ethernet Settings shows in the display.
2. Press **<ENTER>**.
3. If **<Art-Net>** shows in the display, go to Step 7 below to configure Art-Net™ settings.

If **<Kling-Net>** shows in the display, do the following:

4. Press **<ENTER>**. The words **<Kling-Net>** start blinking
5. Press **<UP>** or **<DOWN>** The words **<Art-Net>** show and blink.
6. Press **<ENTER>**. The words **<Art-Net>** stop blinking.

The Art-Net™ protocol is set. Go to Step 7 below to configure Art-Net™ settings.

Once the Nexus™ 4x1 is set to Art-Net, do the following:

7. Press **<DOWN>**. Universe **< xx>** shows..
8. Press **<ENTER>** the **< xx>** starts blinking.
9. Press **<UP>** or **<DOWN>** until the desired universe number (1–15) shows.
10. Press **<ENTER>** the **< xx>** stops blinking.
11. Press **<DOWN>** Subnet **< xx>** shows.
12. Press **<ENTER>** the **< xx>** starts blinking.
13. Press **<UP>** or **<DOWN>** until the desired subnet number (1–15) shows.
14. Press **<ENTER>** the **< xx>** stops blinking.
15. Press **<DOWN>**. Net **< xx>** shows..
16. Press **<ENTER>** the **< xx>** starts blinking.
17. Press **<UP>** or **<DOWN>** until the desired net number (1–127) shows.
18. Press **<ENTER>** the **< xx>** stops blinking.
19. Press **<DOWN>**. IP Mode **< xxxxx>** shows.
20. Press **<ENTER>** the **< xxxxx>** starts blinking.
21. Press **<UP>** or **<DOWN>** to cycle through the IP options **<Manual>**, **<Static>**, **<DCHP>**.
22. Press **<ENTER>**.

If **<Manual>** IP mode is selected, the IP Address shows. To set the IP address, do the following:

1. Press **<ENTER>** to move between IP address elements.
2. Press **<UP>** and **<DOWN>** to set the numbers within each IP address element.
3. Press **<MENU>** to confirm the IP address.

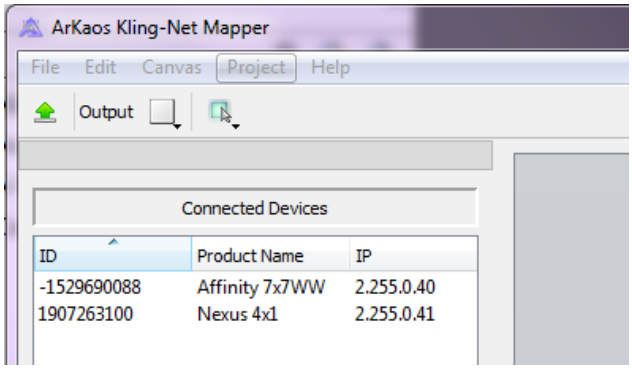
Kling-Net Mapper

Kling-Net Mapper is part of the Arkaos software package and is used to inform The ArKaos software about the layout of the Nexus™ 4x1 panels. This process is called mapping. Kling-Net Mapper and ArKaos software can be run simultaneously allowing the operator to see immediately the effects of the mapping on the live presentation. However, Kling-Net Mapper does not need to be active for Arkaos software to work. For more information, see ArKaos manuals at http://arkaospro.com.

Part 1: Confirm Network Connectivity

The following section provides step-by-step instructions for mapping the Nexus™ 4x1 panels and informing ArKaos software of the mapping.

1. Connect the Arkaos computer and Nexus™ 4x1s to the same network. For more information, see Ethernet Connections Diagram.
2. Set the all the Nexus™ 4x1s to Kling-Net operating mode. For more information, see Kling-Net.
3. Open the ArKaos Kling-Net Mapper. All the Kling-Net™ devices populate a list on the left side of the screen in the Connected Devices window



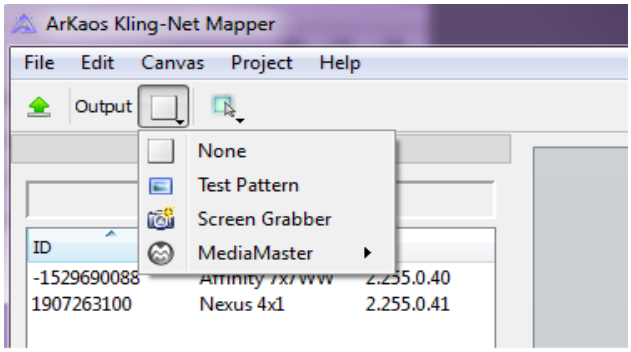
The Connected Devices Window

It can take up to 20 seconds for all the products to populate the list and the devices display in different colors for different reasons, which are as follows:

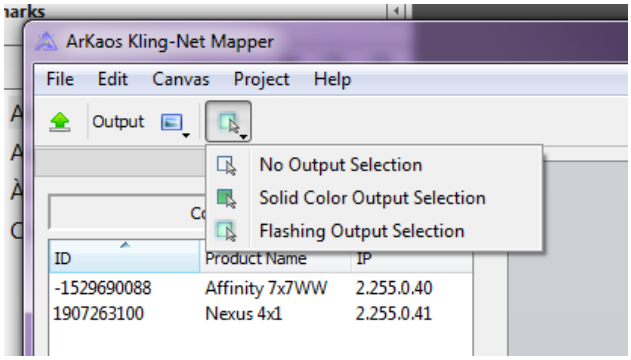
Colors and Activity	Explanation
Black with an ID number and IP address	There is connectivity and everything is working properly, but the device is not yet mapped.
Green with an ID number and IP address	There is connectivity and everything is working properly, and the device is mapped.
Black to red with no IP address during initial population	The King-Net™ Mapper could not find an IP address for the device, most likely because the system is using an Ethernet switch instead of an Ethernet hub.
Black to red after initial population	The connectivity has been lost.

Part 2: Test Network Connectivity

4. Select the Output dropdown icon from the tool bar at the top of the Kling-Net Mapper screen. One of the options will be Test Pattern.



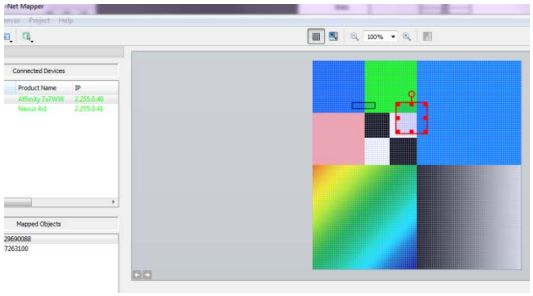
5. Select Test Pattern. The image to the right of the icon is a small screen, indicating that Test Pattern is the current mode.
6. Select the icon to the right of the Output dropdown icon. One of the options will be Flashing Output Selection.



7. Select Flashing Output Selection. The icon is a faded green square with an arrow, indicating that a flashing green light is the current test pattern.
8. Left click once on an LED display product. The product flashes green.
9. Repeat step 8 for every product in the list.

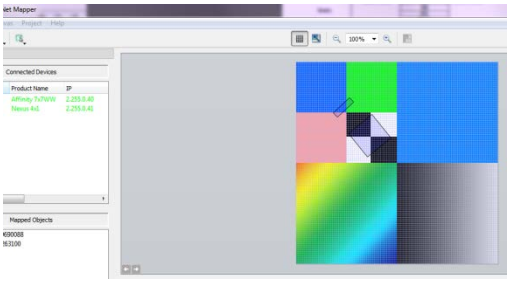
Part 3: Map The Products For ArKaos

10. Make sure the Nexus™ 4x1 products are all listed in the Connected Devices window and have flashed when tested. For more information, see Part 1: Confirm Network Connectivity and Part 2: Test Network Connectivity.
11. Click on the first product in the list and drag it onto the mapping image in the center of the screen. A shape representing the display product shows on the mapping image. The product displays the pattern on the mapping image.

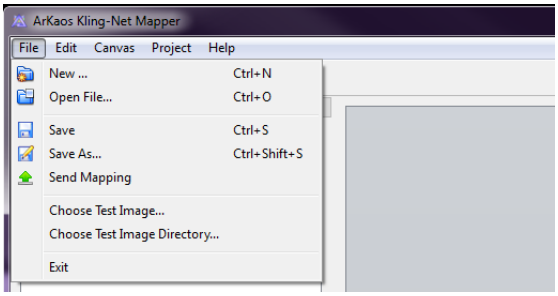


The red outline around the product on the mapping image indicates that the product is selected

12. Drag, rotate, and resize the shape on the mapping image until it is in the position needed for the presentation layout.



13. Repeat steps 2 thru 3 for every Nexus™ 4x1 product.
14. Complete Parts One and Two.
15. Click on File in the Arkaos Media Mapper.
16. Click on Save AS.



17. Save the file.

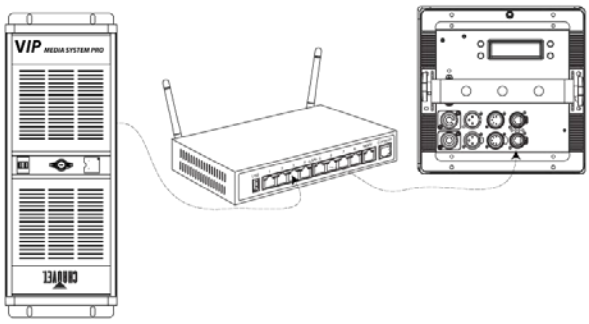
Remember the location of the file because the file must be loaded into ArKaos software.

Nexus Software Upgrade Instructions

The following steps refer to the Windows® 7 operating system environment.

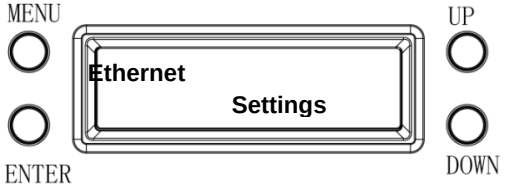
Step 1:

1. Connect the Nexus™ 4x1 to the router.
2. Verify the computer is using the same network as the Nexus™ 4x1 product.



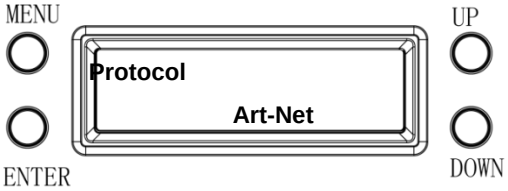
Step 2:

1. From the Nexus™ 4x1 main level, navigate to Ethernet > Settings.



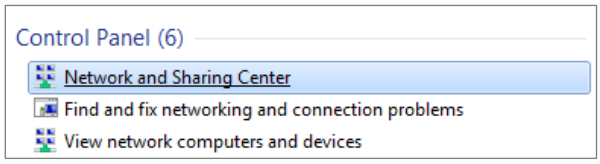
Step 3:

1. Select Protocol.
2. Select **<Art-Net>**.
3. Select **<Static>** IP Mode.



Step 4:

1. From the Windows® start menu, click the **<Start>** button.
2. From the Search box, type Network and Sharing Center. Windows will generate the search results in the Start window.
3. Select Network and Sharing Center and the Network and Sharing Center dialog appears.

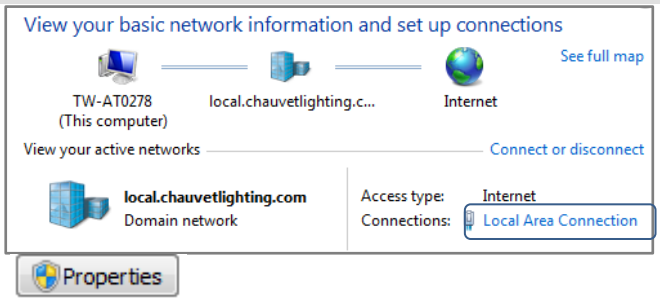


Step 5:

1. Select the desired network the product is connected to.

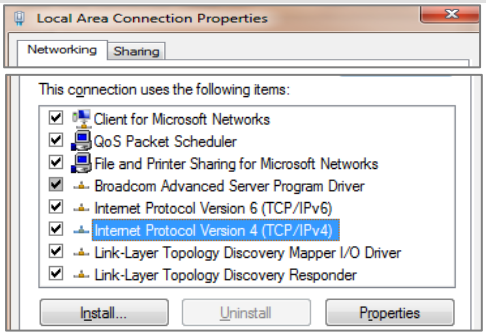
If you are running a hard-wired line from the PC to your router, then select Local Area Connection. The Local Area Connection Status dialog appears.

2. Click Properties. The *Local Area Connection Properties* dialog appears.



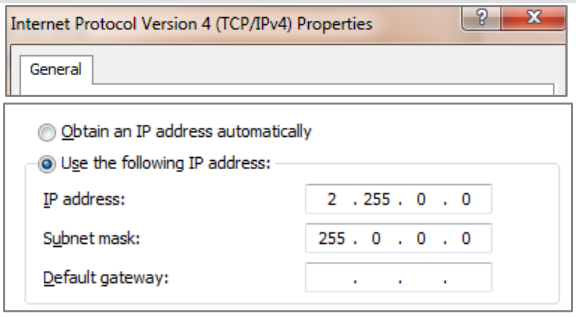
Step 6:

1. From the Networking tab, select Internet Protocol Version 4 (TCP/IPv4).
2. Click Properties. The Internet Protocol Version 4 (TCP/IPv4) Properties dialog appears.



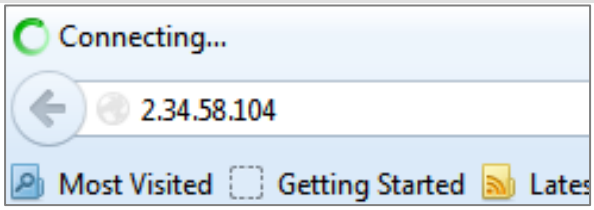
Step 7:

1. From the General tab, select Use the following IP address:.
2. Enter the following information:
3. Enter 2.255.0.0 in the IP address box.
4. Enter 255.0.0.0 in the Subnet mask box.
5. Click OK.
6. Close existing dialogs that are currently open.
7. Minimize the Control Panel, as it will be necessary to access this window after the software upgrade is uploaded to the product.



Step 8:

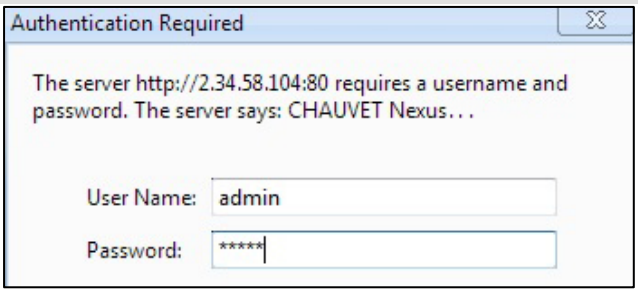
1. From the Nexus™ 4x1 control panel, navigate to the Info main level.
2. Select IP Address.
3. From the PC, open the Internet browser.
4. Enter the IP address for the Nexus™ 4x1 you are working with in the address bar. For example, if the IP address shown in the product's control panel is 2.34.58.104, then type that into your internet browser address bar).
5. Press ENTER. The *Authentication Required* dialog appears.



Step 9:

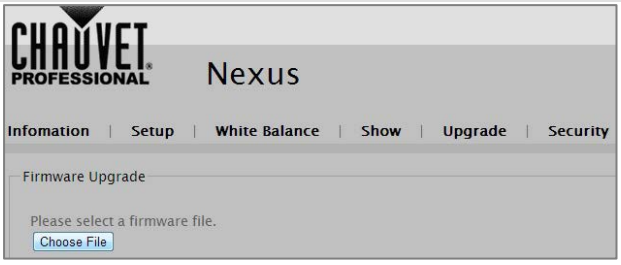
1. Enter the following information:
2. Enter admin in the User Name box.
3. Enter admin in the Password box.
4. Click Log In. The Nexus™ 4x1 firmware window appears.

If the user name/password you entered is invalid, follow the Reset To Factory Default procedure.



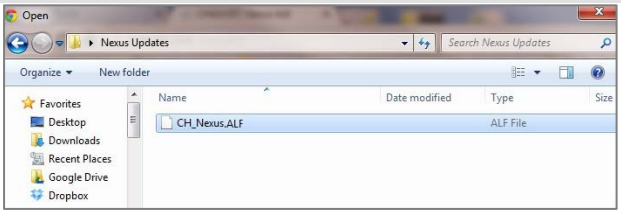
Step 10:

1. From the Navigation bar, select the Upgrade tab.
2. From the Firmware Upgrade section, click Choose File. The *Open* dialog appears.



Step 11:

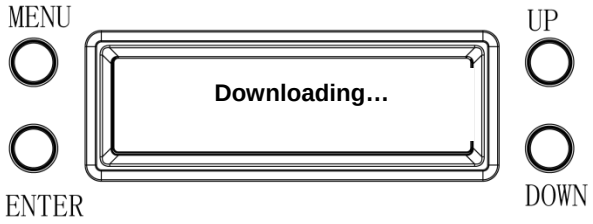
1. From the Open dialog, select the file to upload the firmware onto the Nexus™ 4x1 product.
2. Click Open.



The **"Downloading…"** message appears in the product's control panel.

Once the firmware finishes downloading the software, the product will automatically reset the unit and the control panel flickers.

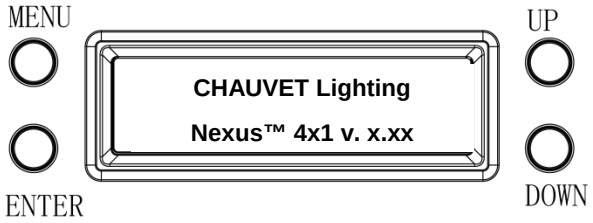
Do not turn off the product during the downloading process. It will take approximately 1 min before to reset.



Step 12:

1. Navigate to the Info main level.
2. Select Version.
3. Verify the product's control panel displays the uploaded version.

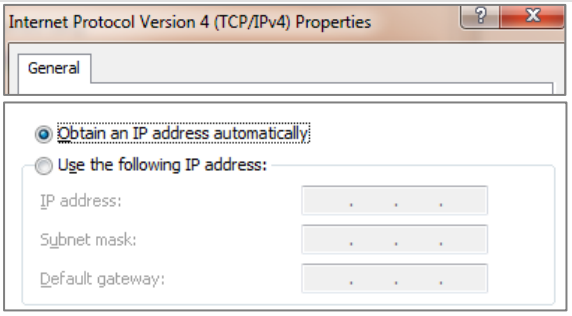
The software upgrade is now complete.



Step 13:

Once the software upgrade is complete, the IP setting on your PC needs to be changed back to the original settings.

1. Refer to step #4 for navigation instructions on how to access the *Internet Protocol Version 4 Properties (TCP/IPv4)* dialog.
2. From the General tab, select Obtain an IP address automatically, and click OK.
3. Continue to close the dialogs displayed until you exit out of the Control Panel.



The installation process is complete.

The examples shown are for illustrative purposes, and your product's screens may appear slightly different.

DMX Channel Assignments And Values

The following tables show the DMX channel function assignments and the values that trigger the functions.

17-Channel

17 CH

Channel	Function	Value	Percent/Setting
1	Red 1	000 ó 255	0–100%
	Warm White 1		When values 011-020 in CH. 17 are activated
2	Green 1	000 ó 255	0–100%
	Cool White 1		When values 011-020 in CH. 17 are activated
3	Blue 1	000 ó 255	0–100%
4	Red 2	000 ó 255	0–100%
	Warm White 2		When values 011-020 in CH. 17 are activated
5	Green 2	000 ó 255	0–100%
	Cool White 2		When values 011-020 in CH. 17 are activated
6	Blue 2	000 ó 255	0–100%
7	Red 3	000 ó 255	0–100%
	Warm White 3		When values 011-020 in CH. 17 are activated
8	Green 3	000 ó 255	0–100%
	Cool White 3		When values 011-020 in CH. 17 are activated
9	Blue 3	000 ó 255	0–100%
10	Red 4	000 ó 255	0–100%
	Warm White 4		When values 011-020 in CH. 17 are activated
11	Green 4	000 ó 255	0–100%
	Cool White 4		When values 011-020 in CH. 17 are activated
12	Blue 4	000 ó 255	0–100%
13	Auto Programs	000 ó 010 011 ó 033 034 ó 055 056 ó 077 078 ó 099 100 ó 121 122 ó 144 145 ó 166 167 ó 188 189 ó 210 211 ó 232 233 ó 255	No Function Auto 1 Auto 2 Auto 3 Auto 4 Auto 5 Auto 6 Auto 7 Auto 8 Auto 9 Fade 1 Fade 2
14	Auto Speed	000 ó 255	When values 011–255 in CH. 13 are activated
15	Dimmer	000 ó 255	0–100%
16	Strobe	000 ó 010 011 ó 255	No function 0–20 Hz
17	Dimmer Speed	000 ó 010 011 ó 020 021 ó 030 031 ó 051 052 ó 101 102 ó 152 153 ó 203 204 ó 255	Preset dimmer speed from display menu WW/CW mode on (hold for 5 sec.) WW/CW mode off (hold for 5 sec.) No function Linear dimmer Nonlinear dimming curve 1 (fastest) Nonlinear dimming curve 2 Nonlinear dimming curve 3 (slowest)

12-Channel

12 CH

Channel	Function	Value	Percent/Setting
1	**Red 1**	000 ó 255	0–100%
2	**Green 1**	000 ó 255	0–100%
3	**Blue 1**	000 ó 255	0–100%
4	**Red 2**	000 ó 255	0–100%
5	**Green 2**	000 ó 255	0–100%
6	**Blue 2**	000 ó 255	0–100%
7	**Red 3**	000 ó 255	0–100%
8	**Green 3**	000 ó 255	0–100%
9	**Blue 3**	000 ó 255	0–100%
10	**Red 4**	000 ó 255	0–100%
11	**Green 4**	000 ó 255	0–100%
12	**Blue 4**	000 ó 255	0–100%

9-Channel

9 Ch

Channel	Function	Value	Percent/Setting		
1	**Dimmer**	000 ó 255	0–100%		
2	**Red**	000 ó 255	0–100%		
	Warm White		When values 011-020 in CH. 9 are activated		
3	**Green**	000 ó 255	0–100%		
	Cool White 1		When values 011-020 in CH. 9 are activated		
4	**Blue**	000 ó 255	0–100%		
5	**Strobe**	000 ó 009	No function		
		010 ó 255	0–20 Hz		
6	**Color Macro + White Balance**	000 ó 010	No function		
		011 ó 030	R: 100%	G: 0–100%	B: 0
		031 ó 050	R: 100%–0	G: 100%	B: 0
		051 ó 070	R: 0	G: 100%	B: 0–100%
		071 ó 090	R: 0	G: 100%–0	B: 100%
		091 ó 110	R: 0–100%	G: 0	B: 100%
		111 ó 130	R: 100%	G: 0	B: 100%–0
		131 ó 150	R: 100%	G: 0–100%	B: 0–100%
		151 ó 170	R: 100%–0	G: 100%–0	B: 100%
		171 ó 200	R: 100%	G: 100%	B: 100%
		201 ó 205	White 1		
		206 ó 210	White 2		
		211 ó 215	White 3		
		216 ó 220	White 4		
		221 ó 225	White 5		
		226 ó 230	White 6		
		231 ó 235	White 7		
		236 ó 240	White 8		
		241 ó 245	White 9		
		246 ó 250	White 10		
		251 ó 255	White 11		

9 Ch

Channel	Function	Value	Percent/Setting
7	**Auto Programs**	000 ó 010	No Function
		011 ó 033	Auto 1
		034 ó 055	Auto 2
		056 ó 077	Auto 3
		078 ó 099	Auto 4
		100 ó 121	Auto 5
		122 ó 144	Auto 6
		145 ó 166	Auto 7
		167 ó 188	Auto 8
		189 ó 210	Auto 9
		211 ó 232	Fade 1
		233 ó 255	Fade 2
8	**Auto Speed**	000 ó 255	Only when values 011–255 in CH. 7 are activated
9	**Dimmer Speed**	000 ó 010	Preset dimmer speed from display menu
		011 ó 020	WW/CW mode on (hold for 5 sec.)
		021 ó 030	WW/CW mode off (hold for 5 sec.)
		031 ó 051	No function
		052 ó 101	Linear dimmer
		102 ó 152	Nonlinear dimming curve 1 (fastest)
		153 ó 203	Nonlinear dimming curve 2
		204 ó 255	Nonlinear dimming curve 3 (slowest)

5-Channel

5 Ch

Channel	Function	Value	Percent/Setting
1	**Dimmer**	000 ó 255	0–100%
2	**Red**	000 ó 255	0–100%
3	**Green**	000 ó 255	0–100%
4	**Blue**	000 ó 255	0–100%
5	**Strobe**	000 ó 010	No function
		011 ó 255	0–20 Hz

3-Channel

3 Ch

Channel	Function	Value	Percent/Setting
1	**Red**	000 ó 255	0–100%
2	**Green**	000 ó 255	0–100%
3	**Blue**	000 ó 255	0–100%

5. Technical Information

Product Maintenance

To maintain optimum performance and minimize wear, you should clean this product frequently. Usage and environment are contributing factors in determining the cleaning frequency.

As a rule, clean this product at least twice a month. Dust build-up reduces light output-performance and can cause overheating. This can lead to reduced light source life and increased mechanical wear.

To clean your product:

1. Unplug the product from power.
2. Wait until the product has reached room temperature.
3. Use a vacuum (or dry compressed air) and a soft brush to remove dust collected on the external vents.
4. Clean all external surfaces with a mild solution of non-ammonia glass cleaner or isopropyl alcohol.
5. Apply the solution directly to a soft, lint-free cotton cloth or a lens cleaning tissue.
6. Wipe any dirt or grime to the outside edges of the lens surface.
7. Gently polish the lens surfaces until they are free of haze and lint.

Always dry the external surfaces thoroughly and carefully after cleaning them.

Returns

- The product must be sent prepaid, in the original box, and with the original packing and accessories. Chauvet will not issue call tags.
- Call Chauvet and request a Return Merchandise Authorization (RMA) number before shipping the product. Be prepared to provide the model number, serial number, and a brief description of the cause(s) for the return.
- Clearly label the package with an RMA number. Chauvet will refuse any product returned without an RMA number.

Do not write the RMA number directly on the box. Instead, write it on a properly affixed label.

Once Chauvet has provided an RMA number, include the following information on a piece of paper inside the box:

- Your name
- Your address
- Your phone number
- The RMA number
- A brief description of the problem(s)

Be sure to pack the product properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. FedEx packing or double boxing is recommended.

Chauvet reserves the right to use its own discretion to repair or replace returned product(s).

6. Technical Specifications

Dimensions and Weight

Length	Width	Height	Weight
18.2 in (462 mm)	4.6 in (117 mm)	5.8 in (147 mm)	12.6 lb (5.7 kg)

Dimensions in inches rounded to the nearest decimal digit.

Electrical

Power Supply Type	Range	Voltage Selection
Switching (internal)	100–240 VAC, 50/60 Hz	Auto-ranging

Parameter	120 VAC, 60 Hz	208 VAC, 50 Hz	230 VAC, 50 Hz
Consumption	107 W	393 W,	109 W
Operating current	0.88 A	1.90 A	0.47 A
Power linking (products)	15	7	28
Fuse	T 2 A, 250 V	T 5 A, 250 V	T 2 A, 250 V

Power I/O	U.S./Worldwide	Europe
Power input connector	Neutrik® powerCON® A	Neutrik® powerCON® A
Power output connector	Neutrik® powerCON® B	Neutrik® powerCON® B
Power cord plug	Edison (U.S.)	Local plug

Light Source

Type	Power	Lifespan
LED	27 W	50,000 hours

Color	Quantity	Current
Tri-color (RGB)	4	2 A

Photo Optic

Parameter	Standard Optics
Illuminance @ 5 m	84.2 lux
Beam angle	45°
Field angle	75°
Pixel pitch	115 mm
Pixel density	64/m^2

Thermal

Max. External Temperature	Cooling System
113 °F (45 °C)	Fan-assisted Convection

DMX

I/O Connectors	Connector Type	Channel Range
3- and 5-pin XLR	Sockets	3, 5, 9, 48, or 53

Art-Net™/Kling-Net

I/O Connectors	Connector Type	Channel Range
Neutrik® etherCON®	Sockets	3, 5, 9, 48, or 53

Ordering

Product Name	Item Code	UPC Number
NEXUS4X1	03090713	781462210618

RoHS

UL 1573
CSA C22.2 No. 166
E113093

Contact Us

WORLD HEADQUARTERS - Chauvet

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Fax: (954) 756-8015
Email: tech@chauvetlighting.com

World Wide Web

www.chauvetlighting.com

UNITED KINGDOM AND IRELAND - Chauvet Europe Ltd.

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Technical Support

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World Wide Web

www.chauvet.com.mx

Outside the U.S., United Kingdom, Ireland, or Mexico, contact your dealer. Follow their instructions to request support or to return a product. Visit our website for contact details.